

# Unit 1: Production Possibilities Curve



**WE HAVE A PROBLEM!!**

# **The Economizing Problem...**

## **Scarcity**

**Society has unlimited wants but unlimited resources**



# What is the Production Possibilities Curve?

- A production possibilities curve (PPC) is a model that shows alternative ways that an economy can use its scarce resources
- This model graphically demonstrates scarcity, trade-offs, opportunity costs, and efficiency.

## 4 Key Assumptions

- Only two goods can be produced
- Full employment of resources
- Fixed Resources (*Ceteris Paribus*)
- Fixed Technology

# Production “Possibilities” Table

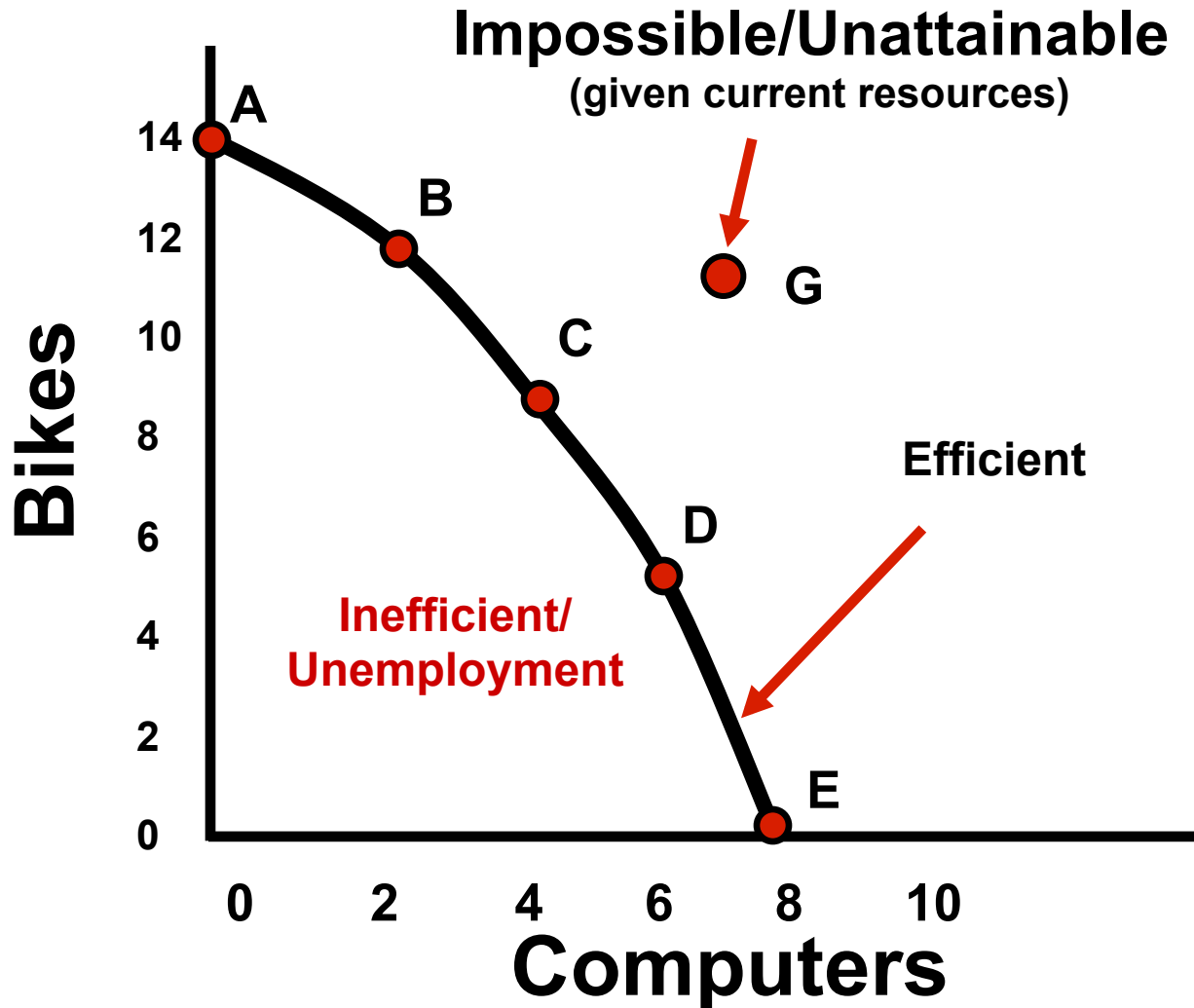
	a	b	c	d	e
Bikes	14	12	9	5	0
Computers	0	2	4	6	8

**Each point represents a specific combination of goods that can be produced given full employment of resources.**

**NOW GRAPH IT: Put bikes on y-axis and computers on x-axis**

# Production Possibilities

How does the PPG graphically demonstrate scarcity, trade-offs, opportunity costs, and efficiency?

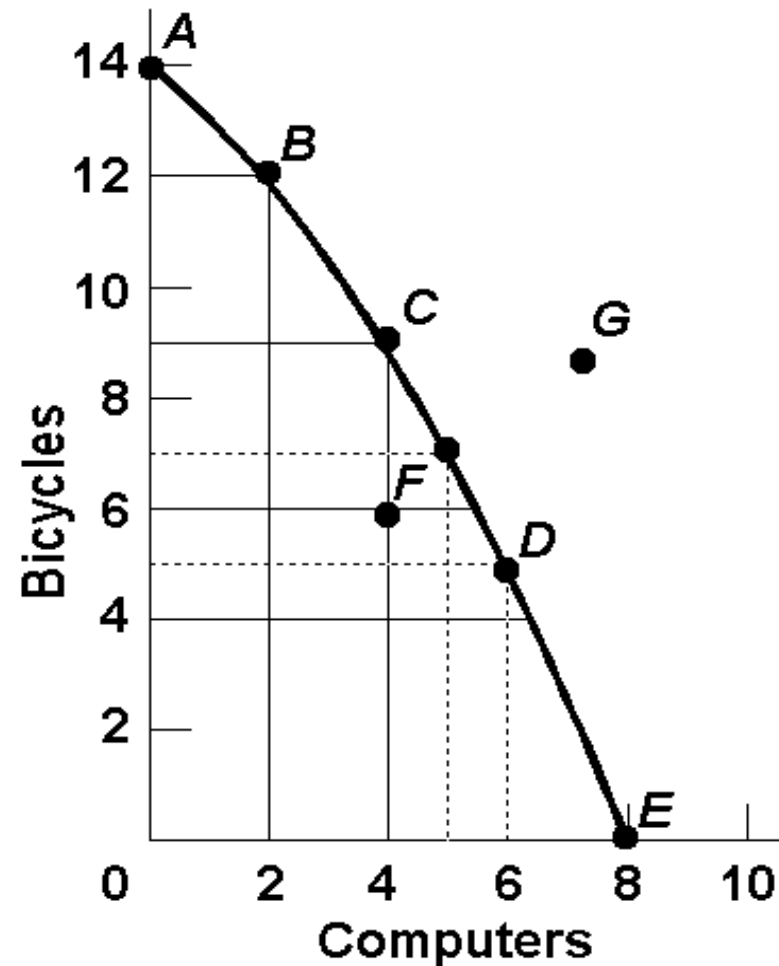


# Opportunity Cost

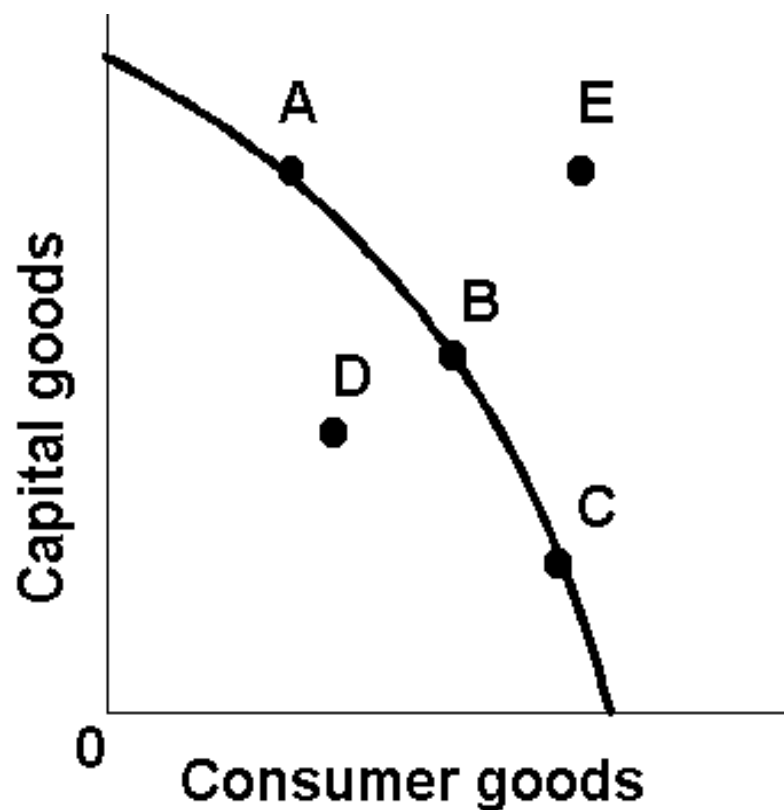


## Example:

1. The opportunity cost of moving from a to b is... **2 Bikes**
2. The opportunity cost of moving from b to d is... **7 Bikes**
3. The opportunity cost of moving from d to b is... **4 Computer**
4. The opportunity cost of moving from f to c is... **0 Computers**
5. What can you say about point G?  
**Unattainable**



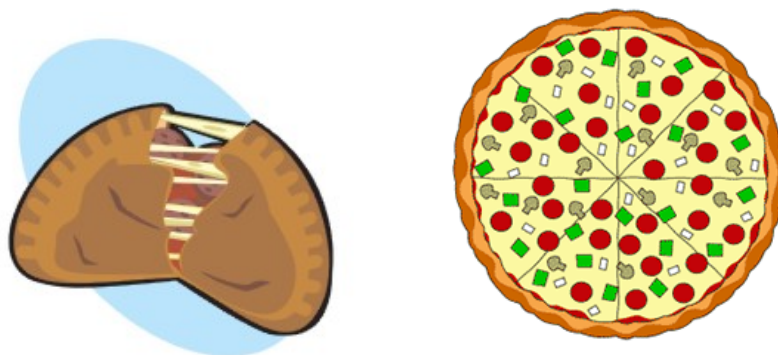
# The Production Possibilities Curve (or Frontier)



# Production Possibilities

	A	B	C	D	E
CALZONES	4	3	2	1	0
PIZZA	0	1	2	3	4

- List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.
- **Constant Opportunity Cost**- Resources are easily adaptable for producing either good.
- Result is a straight line PPC (not common)





# Production Possibilities



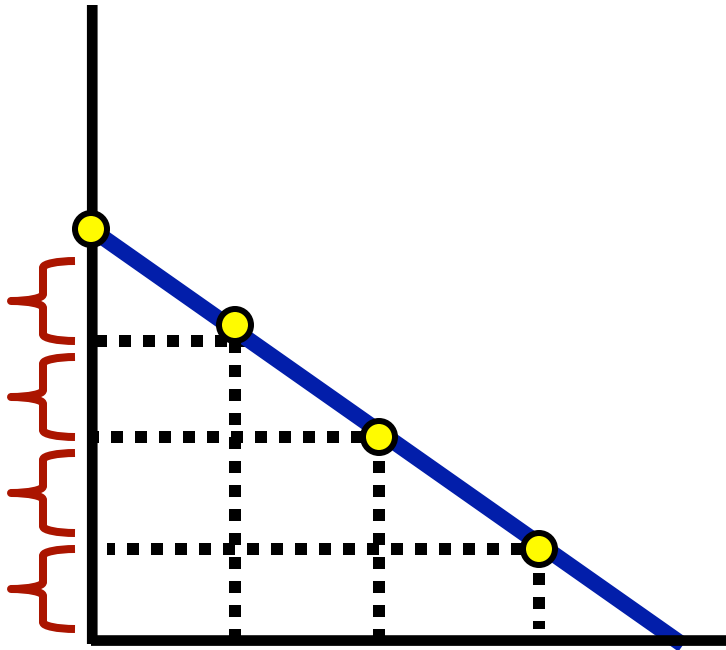
	A	B	C	D	E
Burritos	20	19	16	10	0
Computers	0	1	2	3	4

- List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.
- **Law of Increasing Opportunity Cost-**
  - As you produce more of any good, the opportunity cost (forgone production of another good) will increase.
  - Why? Resources are NOT easily adaptable to producing both goods.
- Result is a bowed out (Concave) PPC

# Constant vs. Increasing Opportunity Cost

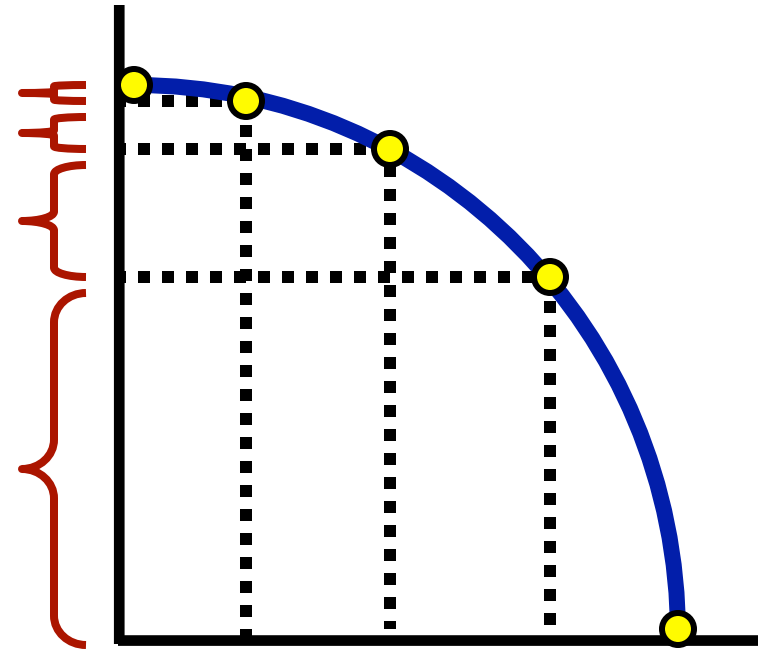
Identify which product would have a straight line PPC and which would be bowed out?

Corn



Wheat

Cars



Pineapples

# **Shifting the Production Possibilities Curve**

# Production Possibilities

## 4 Key Assumptions Revisited

- Only two goods can be produced
- Full employment of resources
- Fixed Resources (4 Factors)
- Fixed Technology

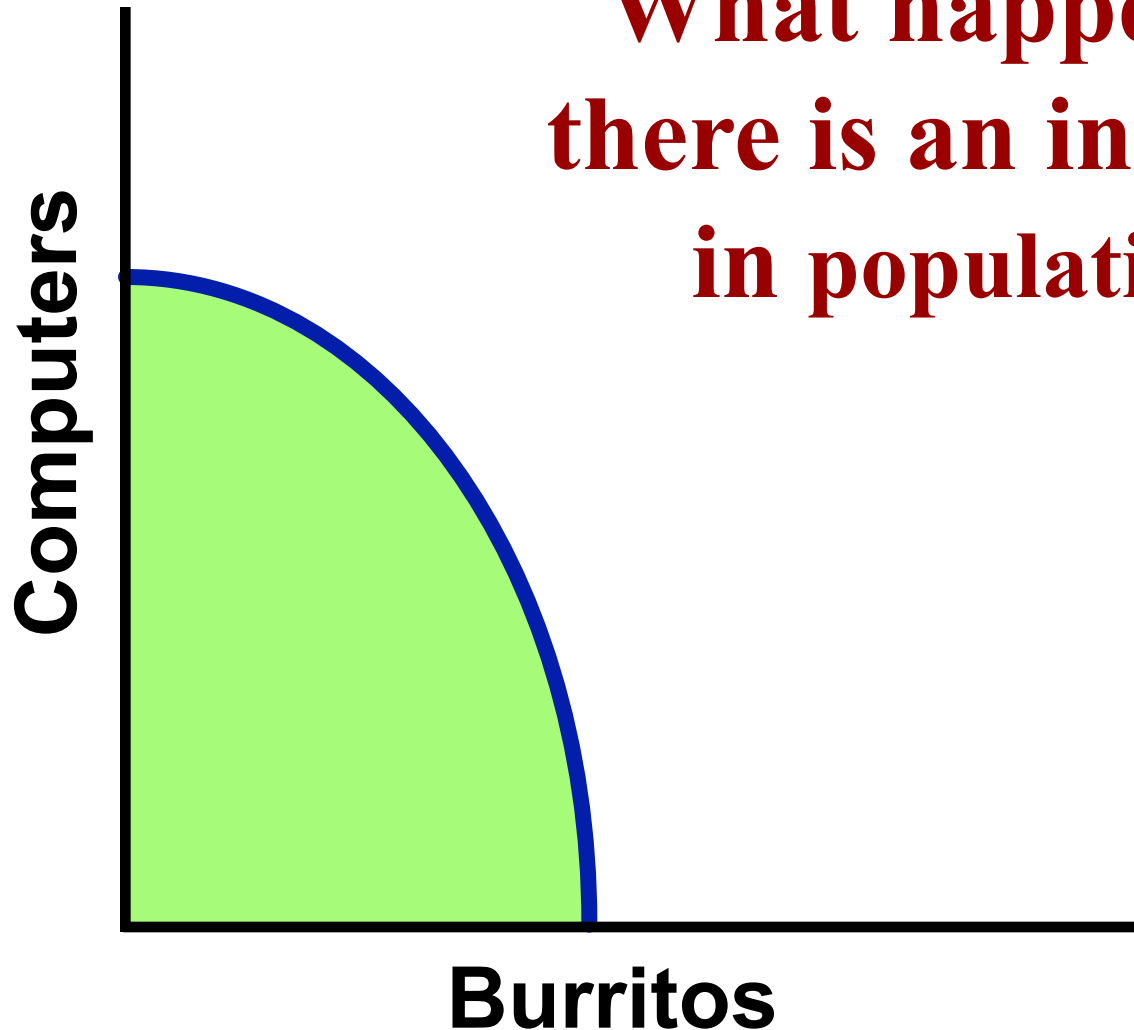
What if there is a change?

## 3 Shifters of the PPC

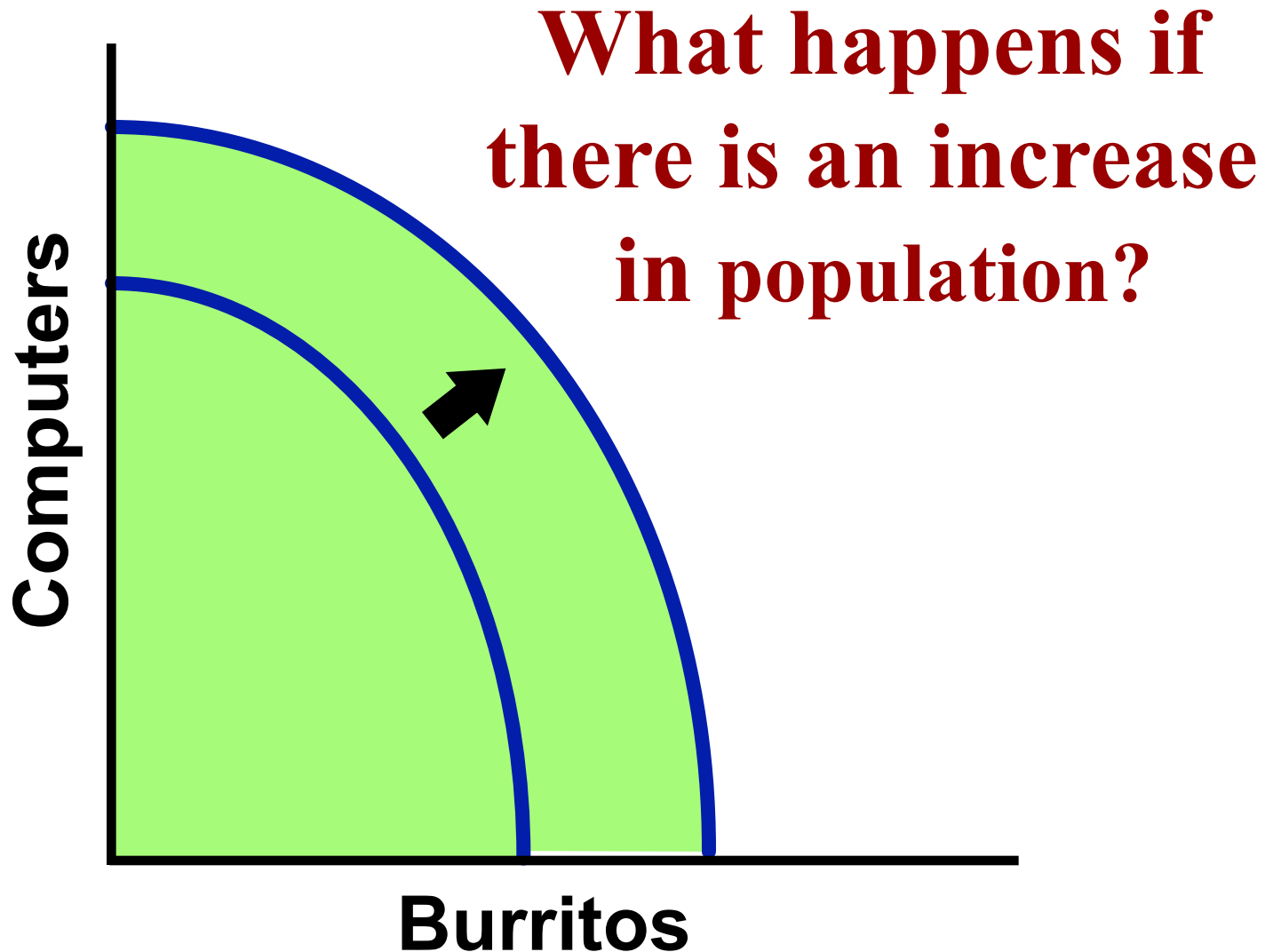
1. Change in resource quantity or quality
2. Change in Technology
3. Change in Trade

# Production Possibilities

**What happens if  
there is an increase  
in population?**

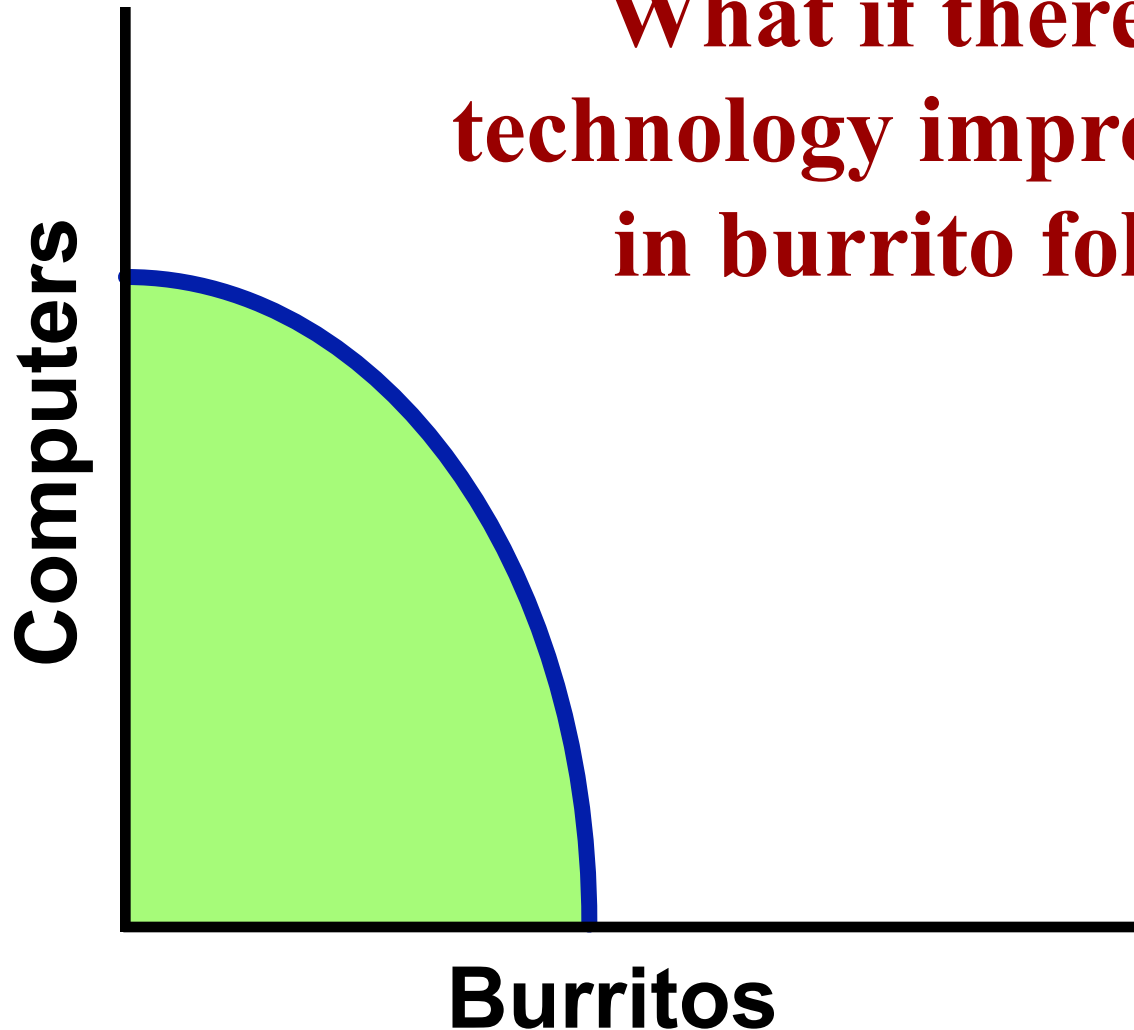


# Production Possibilities



# Production Possibilities

**What if there is a  
technology improvement  
in burrito folding**



# Production Possibilities

